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AIRLINE COMPETITION

Fares and Concentration at Small-City Airports

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The Honorable Larry Pressler
Member, Committee on Commerce, Science,
and Transportation
United States Senate

The Honorable Kent Conrad
United States Senate

During the past several years, GAO and other organizations have undertaken several studies on fares, service, and competition in the airline industry. However, these studies generally focused on the nation's largest airports. In response to your concern, we examined fares and competition at 39 airports serving small cities such as Sioux Falls, South Dakota, and Bismarck, North Dakota.[1] The objectives of our study were to determine (1) if passengers flying from small-city airports pay, on average, higher fares than passengers flying from major airports; (2) whether market concentration[2] at small-city airports is associated with higher fares; and (3) whether fares on routes from small-city airports are affected by market concentration at major destination airports. For our review, we examined fares in 1989.

Results in Brief

Our results indicate that overall there is little disparity between fares at small-city and major airports. Passengers flying from small-city airports paid only 3 percent more than passengers flying from major airports.[3]

Our results also show that concentration at small-city airports is only slightly associated with higher fares. For example, fares on average

[1]This study employs the same definition of a small city (a metropolitan statistical area of 300,000 people or fewer) as did Airline Deregulation: Trends in Airfares at Airports in Small and Medium-Sized Communities (GAO/RCED-91-13, Nov. 8, 1990).

[2]Concentration is the extent to which one or several firms dominate a market or an industry. For this study, a concentrated airport was one where a single airline accounted for at least 60 percent of the passenger boardings at the airport and/or two airlines accounted for at least 85 percent of the boardings.

[3]To compare fare levels, we used a fare index that accounts for differences in trip distance. See appendix I for a detailed explanation of the fare index.

were only 6 percent higher at concentrated small-city airports than at unconcentrated small-city airports.[4]

Our results also indicate, however, that concentration at major destination airports has a strong influence on fares at small-city origin airports. For example, passengers flying from small-city airports to major airports paid 34 percent more if the major airport was concentrated than if it was unconcentrated. When both the small-city origin and the major destination were concentrated, fares were 42 percent higher than when the airports at both ends of the route were unconcentrated. This finding suggests that concentration at major airports can mean higher fares not only for people flying from those airports, but also for passengers flying to those airports.[5]

Background

The Airline Deregulation Act of 1978 (P.L. 95-504) phased out economic regulation of the airline industry. Deregulation allowed new airlines to enter the industry and existing airlines to change their fare and service structures without obtaining approval from government regulators. During the first 5 years or so, these new freedoms led to a proliferation of new carriers, increased air service, and lower fares. But subsequent changes in the industry may have adversely affected the competitive environment.

Between 1985 and 1988, many airlines went bankrupt or merged with other airlines. As the surviving airlines began to establish dominant positions at certain airports, fares for travel from such airports rose, sparking congressional concern that in some markets some airlines were sufficiently dominant to charge higher prices. Some observers feared that growing monopolization would lead to higher fares and reduced service in some markets.

Our study of fares at major airports showed that yields (fares per mile) were 27 percent higher at the concentrated major airports than at the

[4]This difference contrasts sharply with the 21-percent difference we found between fares at 15 concentrated and 38 unconcentrated major airports. See Airline Competition: Higher Fares and Reduced Competition at Concentrated Airports (GAO/RCED-90-102, July 11, 1990).

[5]It should be noted, however, that factors besides concentration can affect average fares. Among these are traffic volume, the proportion of business traffic relative to leisure traffic, the availability of nonstop service, and the presence of low-cost airlines in a market. In this study, we did not attempt to determine the relative effects of all factors that can influence fares. In a separate study, to be published later this year, we developed an econometric model designed to measure the effects of such factors, including barriers to market entry, on fares.

unconcentrated ones. When we compared airports where the average trip distances were similar, the difference narrowed somewhat to 21 percent. A study by the Department of Transportation (DOT) found a similar difference between fares at concentrated and unconcentrated airports.[6]

Methodology

We studied average fares in 1989 for 39 small-city airports. Of these, 20 were concentrated.[7] Our first objective was to determine whether passengers flying out of small-city airports paid higher fares than those flying from major airports. To do this, we compared average fares from the group of small-city airports with average fares from the group of 53 major airports used in our recent study of fares at major airports.

Our second objective was to determine whether market concentration at the small-city airports was associated with higher fares. To do this, we compared the fares at the 20 concentrated small-city airports with the fares at the 19 unconcentrated small-city airports.

Our final objective was to determine whether market concentration at major destination airports affected fares at small-city origin airports. To do this, we compared average fares across routes from the small-city airports to the 15 concentrated major airports with fares from the small-city airports to the 38 unconcentrated major airports. About 15 percent of all passengers flying from the 39 small-city airports flew to these 15 concentrated major airports, and about 39 percent flew to these 38 unconcentrated major airports. We also compared fares on routes where both small-city origin and the major destination airports were concentrated with fares on routes where the airports at both ends were unconcentrated. About 6 percent of all passengers flying from the 39 small-city airports flew from concentrated origins to concentrated major airports. About 23 percent flew from unconcentrated small-city airports to unconcentrated major airports. For a more detailed explanation of our methodology, including information on sampling errors, see appendix I.

[6]Secretary's Task Force on Competition in the U.S. Domestic Airline Industry, DOT (Washington, D.C., Feb. 1990).

[7]See appendix I for the selection criteria and appendix III for a listing of the airports.

Fares at Small-City Airports Are Slightly Higher Than Fares at Major Airports

Some, including Members of Congress, have been concerned that passengers flying from airports serving smaller cities pay substantially more than those flying from major airports. However, in 1989, passengers flying from small-city airports, on average, paid only 3 percent more than passengers flying from major airports.[8]

Greater traffic volume on routes from major airports should result in greater competition on those routes, as well as lower costs for carriers able to gain more passengers on a given route or set of routes.[9] Moreover, the 3-percent difference found in this study is consistent with the findings of our recently issued report on fare changes since deregulation at airports serving small and medium-sized communities. That report showed average yields at airports serving small communities were 9 percent higher than yields at 25 airports serving the nation's largest metropolitan areas. In the current study, we found a 5-percent difference in yields at small-city airports and our comparison group of 53 major airports.[10]

To the extent that they have increased competition at smaller airports, hub-and-spoke systems also may explain why only a relatively small difference exists between fares at small-city airports and major airports. Efficient hub-and-spoke networks allow carriers to provide service on routes they could not profitably serve with nonstop service. A carrier with an effective hub-and-spoke network can offer relatively convenient service to a large number of destinations merely by adding a few well-timed flights to one or more of its hubs. This capability makes it easier for a carrier to challenge the position of a dominant airline and can increase competition, thus lowering fares at smaller airports. In fact, DOT found that competition at small airports has increased with the widespread usage of hub-and-spoke systems. But where increased service by the hubbing airline has resulted in that carrier's domination of traffic at

[8]In our November 1990 study (cited earlier), we analyzed fares over time at airports serving small and medium-sized communities. We reported that, overall, inflation-adjusted fares per passenger mile were more than 9 percent lower in 1988 than in 1979 at airports serving small and medium-sized communities and about 5 percent lower at airports serving large communities. This suggests that air travel for much of the public has become less expensive since the period immediately following deregulation.

[9]Traffic volume is referred to as density. Increases in density allow an airline to use larger, more efficient aircraft or to reduce per-passenger costs in other ways. Since lower costs should lead to lower prices, one would expect to find higher fares where there are fewer passengers, absent other mitigating factors, such as airlines' having significant market power.

[10]The 25 airports serving the nation's largest metropolitan areas were, on average, much larger than the 53 major airports in this study.

a hub, the establishment of the hub probably has resulted in less, rather than more, competition on routes to and from the concentrated hub.

Our report on fares and competition at major airports showed that while the frequency of flights generally increased at concentrated major airports from 1985 through 1988, the ability of passengers to choose among airlines often decreased. The establishment or consolidation of hubs at those airports contributed to both phenomena.

Fares Are Slightly Higher at Concentrated Small-City Airports Than at Unconcentrated Small-City Airports

When we compared fares at the 20 concentrated small-city airports with fares at the 19 unconcentrated small-city airports, we found that the former were only 6 percent higher than the latter. (See app. II, table II.1.) This difference contrasts sharply with the 21-percent difference we found between fares at concentrated and unconcentrated major airports in our previous study.

A reason why concentration is associated with substantially higher fares at major airports but with only slightly higher fares at small-city airports could be the differing nature of concentration at different-sized airports. It is likely that the markets of many dominant airlines at small-city airports are less secure (or more contestable) than at many concentrated major airports. When a market is contestable, other carriers can readily enter it if they see an opportunity to profit, and the mere threat of competition will in itself be sufficient to hold down the incumbent's fares. The theory of contestability was part of the basis for DOT's approval of the many airline mergers that occurred from 1985 through 1989. DOT believed (as did many other industry analysts) that airline markets had few barriers to entry or exit once government regulation was lifted. However, the application of this theory to the airline industry has been strongly criticized in recent years, because market entry is not nearly as easy as was once thought. Limited access to gates and other facilities, majority-in-interest clauses, and slot controls are among the many barriers that can frustrate competing carriers' easy entry into a market.

Where such barriers to entry exist, the threat of entry is less viable. Because far fewer entry barriers appear to exist at small airports than at major airports, concentrated small-city airports are probably more

contestable than concentrated major airports.[11] Thus, dominant airlines probably have less ability to raise average fares at concentrated small-city airports than at concentrated major airports.

Market Concentration at Major Destination Airports Affects Fares at Small-City Origin Airports

Passengers flying from small-city airports paid, on average, 34 percent more when they flew to a major airport dominated by one or two airlines than when they flew to a major airport that was not concentrated. (See app. II, table II.2.) When both ends of the route—the small-city origin and the major destination—were concentrated, fares were 42 percent higher than when both ends were unconcentrated.

The results of this analysis expand on those of our recent study on fares at major airports. Concentration at major airports not only appears to increase fares at those airports, as our previous study showed, but it also appears to increase fares at the small-city airports feeding into the major airports. Moreover, the results of this study suggest that concentration at the small-city origin airports—though having some influence on fares—is not nearly as important in affecting fares at those airports as is concentration at the major destination airports.

Conclusions

This study reinforces the results of our earlier study indicating that a high degree of market concentration at airports may lead to higher fares. In addition, it suggests that deregulation has not necessarily led to a greater disparity between fares at small-city and major airports, but may have helped narrow the difference.

Most important, our results indicate that concentration at major airports can mean higher fares not only for passengers flying from those airports, as previously reported, but also for passengers flying to those airports. While concentration was consistently accompanied by higher fares, its influence did not seem to be as important at small-city airports as at major airports. While there are several possible explanations for this finding, a likely reason is that at concentrated major airports, dominant airlines are better able to make use of barriers to entry and other advantages to defend their market shares.

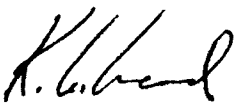
[11]The results of a recent GAO study indicate that barriers to entry are more prevalent and stronger at major airports than at small airports. For example, our recent survey on barriers to entry showed that small airports were less likely to have restrictive gate leases than were large or medium-sized airports. Moreover, only 26 percent of the small airports, compared to 73 percent of the large and medium-sized airports, reported factors that would limit airport and facility expansion over the next 5 years. See Airline Competition: Industry Operating and Marketing Practices Limit Market Entry (GAO/RCED-90-147, Aug. 29, 1990).

Finally, we found that while average fares at small-city airports are higher than those at major airports, the difference is not great.

We are not making any recommendations in this report. However, the results of this and other GAO studies suggest the importance of developing policies to reduce or mitigate the effects of barriers to entry, especially at concentrated major airports. We have reported and testified on several policy options, including authorization for airports to use passenger facility charges to finance needed capacity expansion.[12] Later this year, we plan to issue a report synthesizing all of our work on competition in the airline industry, including recommendations and matters for congressional consideration.

As agreed with the requesters, we did not obtain formal agency comments on this study. However, DOT officials provided oral comments on a draft of this report. DOT expressed some concern that our study uses a cross-sectional design and thus does not compare its results to similar results for the period before deregulation. In response to this concern, we included information from a recent GAO study focusing on fares at small and medium-sized airports over time. DOT officials were also concerned that the number of passengers traveling between concentrated airports might represent only a small percentage of the total number flying from small-city airports. We have provided in our methodology section the passenger distributions of the small-city airports.

As arranged with your offices, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days after the date of this letter. At that time, we will send copies to the Secretary of Transportation and to other interested parties. If you have any questions about this report, I can be reached at (202) 275-1000. Major contributors to this report are listed in appendix IV.



Kenneth M. Mead
Director, Transportation Issues

[12]For a discussion of policy options see Barriers to Competition in the Airline Industry (GAO/T-RCED-89-65, Sept. 21, 1989). For a more thorough discussion of barriers to entry and passenger facilities charges, see Airline Competition: Passenger Facility Charges Represent a New Funding Source for Airports (GAO/RCED-91-39, Dec. 13, 1990).

Contents

Letter		1
Appendix I Objectives, Scope, and Methodology		10
	Criteria for Airport Selection	10
	Criteria for Airport Concentration	11
	Major Airports in Comparison Groups	11
	Fare Data Base	12
	Fare Index	13
	Other Data	13
Appendix II Average Fares and Yields for Small-City Airports and for Routes From Small-City Airports to Major Airports		14
Appendix III Average Fares and Other Data for Each of the Small-City Airports		15
Appendix IV Major Contributors to This Report		17
Tables	Table II.1: Comparison of Average Fares and Yields for Concentrated and Unconcentrated Small-City Airports	14
	Table II.2: Comparison of Average Fares and Yields for Routes From Small-City Airports to Concentrated and Unconcentrated Major Airports	14

Table III.1: Average Fares and Other Data for Concentrated Airports Providing Service From Small Cities 15

Table III.2: Average Fares and Other Data for Unconcentrated Airports Providing Service From Small Cities 16

Abbreviations

DOT	Department of Transportation
GAO	General Accounting Office
MSA	metropolitan statistical area
O&D	Origin-Destination
RCED	Resources, Community, and Economic Development Division
SIFL	Standard Industry Fare Level

Objectives, Scope, and Methodology

As requested, we examined fares and other comparative data at airports serving small cities. We addressed three questions. The first was whether passengers flying from small-city airports paid higher fares, on average, than did those flying from major airports. The second was whether fares at concentrated small-city airports were higher than fares at unconcentrated small-city airports. The third was whether passengers from small cities paid more to fly to concentrated major airports than to unconcentrated major airports—in other words, whether market concentration at major airports was associated with higher fares at small-city airports.

Criteria for Airport Selection

The airports in our study were those that met four criteria based on originating traffic base, city size, and location.

First, we considered only those airports within the top 175, ranked by the number of originating passengers in 1989. Although this eliminated a large number of airports from our study, it allowed us to have confidence in our results for two reasons. As the volume of scheduled passenger traffic decreases, so does the reliability of a sample of fare data. Furthermore, the lower the traffic volume, the more likely it is that a greater proportion of the traffic is carried on smaller commuter airlines, which do not report fare data. As the proportion of traffic carried on nonreporting carriers increases, our confidence that the fares in a sample accurately represent all fares at the airport decreases.

Second, we excluded airports outside of the 48 contiguous states because traffic from those airports tends to be atypical of domestic travel as a whole.

Third, we defined small cities to be those metropolitan statistical areas (MSA) with populations of no more than 300,000, according to 1988 population estimates by the U.S. Bureau of the Census.[1] This definition is the same as the one used for communities in our study of fares since deregulation at airports serving small and medium-sized communities.[2]

[1]Three communities (Missoula, Grand Junction, and Myrtle Beach) were not listed as MSAs by the Bureau of the Census. Therefore, we used population data for the counties these communities are in

[2]Airline Deregulation: Trends in Airfares at Airports in Small and Medium-Sized Communities (GAO/RCED-91-13, Nov. 8, 1990).

Fourth, we excluded any airports within 50 (straight-line) miles of other airports within the top 175. This minimized the influence of nearby competing service on fares.

Thirty-nine airports met all four criteria. The MSAs served by these airports are listed in appendix III.

Criteria for Airport Concentration

We used the same criteria to identify concentrated airports as those employed in our study of fares at major airports.[3] Concentrated airports were those where a single airline handled at least 60 percent of the passenger enplanements and/or two airlines handled at least 85 percent of the enplanements. We combined enplanement shares for airlines under common ownership—such as Eastern and Continental or Piedmont and USAir—because to treat them as competing airlines could greatly overstate the degree of actual competition at some airports.[4] To determine enplanement shares, we used enplanement data from Onboard, a data base created from Department of Transportation's (DOT) data by Data Base Products, Inc.

Major Airports in Comparison Groups

To compare fare levels at small-city airports with those at major airports, we used data for the 15 concentrated and 38 unconcentrated airports in our study of fares at major airports. The 53 major airports in that study were those airports in the 48 contiguous states that were among the busiest 75 domestic airports (on the basis of enplanements) but not in multi-airport cities. The 53 major airports contrast with the small-city airports in that the former represent most of the busiest airports in the country and serve population centers of about 310,000 to about 6,000,000 people.[5]

[3]Airline Competition: Higher Fares and Reduced Competition at Concentrated Airports (GAO/RCED-90-102, July 11, 1990).

[4]Eastern and Continental are both owned by Continental Airlines Holdings, Inc., formerly Texas Air Corporation. Management control of Eastern was removed from Continental Airlines Holdings, Inc., after Eastern filed for bankruptcy, but this transfer of control did not occur until 1990, after the time of our review. Piedmont was fully merged into USAir in August 1989.

[5]This range excludes the population figure for Reno, which is in both groups of airports. Reno is a small city that, because of its popularity as a destination, is served by one of the busier airports in the country. Because Reno's traffic represents only about 1 percent of the traffic for even the subgroup of unconcentrated major airports, its inclusion as a major airport should not create any discernable bias in comparisons of data for the two groups.

Fare Data Base

To calculate all average fare data, average yields, and the number of passengers per route, we used full-year 1989 data from the Origin-Destination (O&D) Passenger Survey, a 10-percent sample, maintained by DOT, of all domestic airline tickets. We used the fare filter developed by GAO to eliminate from our calculations any fares that were obviously too high or too low. While we excluded these fares when calculating average prices, we counted the passengers who paid those fares when calculating the number of people flying on a route. In calculating average fare data and average yields, we assumed that the actual fares paid for those tickets with invalid fare data were distributed the same as the valid fares. The fare filter is explained in chapter 1 of our report on fares at major airports.

Because we were interested in the fares available to those who flew from the airports in the study, we included in our sample only tickets for originating traffic. Most analyses of airfares include fares paid by all passengers traveling to and from a given airport, regardless of origin.[6] However, there are some airports, especially those at popular leisure destinations such as Reno, where there is reason to believe that the incoming traffic is not of the same type as the originating traffic. Therefore, the failure to distinguish traffic by point of origin can produce misleading averages. If, for example, travel to Reno is largely leisure travel, then the average of all fares to and from Reno is likely to be lower than the average fare from Reno, reflecting lower fares that are available to leisure travelers but not as readily available to residents of Reno.

Since we used a sample (called a probability sample) of fare, yield, distance, and passenger traffic data to develop our estimates, each estimate has a measurable precision, or sampling error, which may be expressed as a plus/minus figure. A sampling error indicates how closely we can reproduce from a sample the results that we would obtain if we were to take a complete count of the universe using the same measurement methods. By adding the sampling error to and subtracting it from the estimate, we can develop upper and lower bounds for each estimate. This range is called a confidence interval. Sampling errors and confidence intervals are stated at a certain confidence level—in this case, 95 percent. For example, a confidence interval at the 95-percent confidence level means that in 95 out of 100 instances, the sampling procedures we

[6]Sometimes an analysis will distinguish between outbound and inbound traffic, which is not the same as distinguishing by point of origin. For example, outbound traffic from Reno includes passengers beginning their travel at Reno and passengers returning from Reno to other cities. Originating traffic includes all passengers who began their travel at Reno, whether just starting out or returning (on round-trips) from other cities.

used would produce a confidence interval containing the universe value we are estimating.

Fare Index

Because decreasing per-mile costs on longer-distance flights can be an important determinant of fare levels, we developed a fare index that accounts for per-mile cost differences. The index allowed us to compare fare levels between groups of airports and between subgroups of routes while minimizing the distortions caused by differences in trip distance.[7] The fare index equals the total value of actual fares paid by passengers at an airport divided by the total fares that would have been paid if fares had been set by a formula that takes into account the cost differences of serving routes of different distances. The fare formula that we used was an adjusted version of the Standard Industry Fare Level (SIFL). To correct for the SIFL formula's underestimation of costs on short-haul routes, we used a higher fixed-cost component. If the fare index for an airport equals 1.0, it means that actual passenger revenues are equal to the revenues that would have been received had each passenger paid the adjusted SIFL fare. If the fare index is greater than 1.0, actual passenger revenues received were higher than what would have been paid according to the adjusted SIFL.[8]

Other Data

In appendixes II and III, we have supplemented our average fare data with data on average yields and trip distances. We have provided yields because they are commonly used in analyses of airfares. Yields were calculated using straight-line distances. Yields can be affected by trip distance, so average trip distances are also shown in both tables in appendix III. Average trip distances were also calculated using straight-line distances. Each one-way ticket was counted as one trip, and each round-trip ticket was counted as two trips.

[7]The fare index was designed to minimize distortions caused by per mile cost differences only. Stronger market domination on short-haul routes may also lead to higher fares on those routes.

[8]Actual fares and passenger revenues are from the O&D Survey.

Average Fares and Yields for Small-City Airports and for Routes From Small-City Airports to Major Airports

Table II.1: Comparison of Average Fares and Yields for Concentrated and Unconcentrated Small-City Airports

	Concentrated	Unconcentrated	Percent difference[a]
Fare index	0.923 (0.0023)	0.874 (0.0018)	6 (0.4)
Average yield[b]	19.3 (0.06)	17.6 (0.04)	10 (0.4)

Note: Sampling errors, at the 95-percent confidence level, are shown in parentheses. See appendix I for explanation of fare index as well as for information on the calculation of average yield.

[a]Percent differences are based on unrounded data and may differ slightly from calculations using rounded data in the table.

[b]Average yields are in cents.

Source: GAO's analysis based on data from DOT's O&D Survey for 1989.

Table II.2: Comparison of Average Fares and Yields for Routes From Small-City Airports to Concentrated and Unconcentrated Major Airports

	To concentrated major airports	To unconcentrated major airports	Percent difference[a]
Fare index	1.088 (0.0043)	0.810 (0.0020)	34 (0.6)
Average yield[b]	23.8 (0.12)	16.0 (0.05)	49 (0.9)

Note: Sampling errors, at the 95-percent confidence level, are shown in parentheses. See appendix I for explanation of fare index as well as for information on the calculation of average yield.

[a]Percent differences are based on unrounded data and may differ slightly from calculations using rounded data in the table.

[b]Average yields are in cents.

Source: GAO's analysis based on data from DOT's O&D Survey for 1989.

Average Fares and Other Data for Each of the Small-City Airports

Table III.1: Average Fares and Other Data for Concentrated Airports Providing Service From Small Cities

MSA served by airport	Fare index	Average yield (cents)	Average trip distance
Bangor, Me	0 850	15 5	1 167
Binghamton/Endicott/Johnson City, N Y	0 983	18 1	1 143
Bismarck/Mandan, N D	0 851	16 6	970
Wausau/Stevens Point, Wis	0 936	18 1	992
Charleston/Dunbar, W Va	1 091	23 9	693
Duluth, Minn /Superior, Wis	0 862	16 4	1 035
Erie, Pa	0 949	19 7	787
Evansville, Ind	1 026	22 5	689
Fargo, N D /Moorhead, Minn	0 844	16 4	978
Fayetteville, N C	0 979	20 2	817
Gainesville, Fla	0 943	19 9	770
Lafayette, La	0 821	16 4	889
Midland/Odessa, Tex	0 638	15 9	509
Myrtle Beach, S C	1 022	23 1	641
Pasco/Kennewick, Wash	0 966	17 9	1 089
Roanoke, Va	1 034	22 3	715
Rochester, Minn	0 988	19 4	945
Springfield, Mo	0 949	19 5	847
Tallahassee, Fla	1 049	24 2	602
Wilmington, N C	1 034	23 7	618
All concentrated airports	0 923	19 3	873

Note: Sampling error, at the 95-percent confidence level, was less than 2 percent of the estimate in all cases except for the average trip distance from Myrtle Beach, in which case it was 2 001 percent. See appendix I for explanation of fare index as well as for information on the calculation of average yield and trip distance.

Source: GAO's analysis based on data from DOT's O&D Survey for 1989

Table III.2: Average Fares and Other Data for Unconcentrated Airports Providing Service From Small Cities

MSA served by airport	Fare index	Average yield (cents)	Average trip distance
Amarillo, Tex.	0.674	16.6	531
Billings, Mont.	0.898	17.9	898
Boise, Ida.	0.999	19.3	978
Burlington, Vt.	0.828	15.6	1,051
Cedar Rapids/Iowa City, Ia.	0.929	18.3	930
Champaign/Urbana, Ill.	0.922	19.1	808
Eugene, Ore.	0.819	15.0	1,173
Grand Junction, Colo.	0.965	20.4	756
Huntsville/Decatur, Ala.	1.215	24.6	877
Lincoln, Neb.	0.865	17.1	942
Lubbock, Tex.	0.600	14.8	520
Medford, Ore.	0.849	16.1	1,019
Missoula, Mont.	0.824	15.2	1,130
Portland, Me.	0.843	15.9	1,053
Rapid City, S.D.	0.918	18.3	917
Reno, Nev.	0.844	16.9	861
Savannah, Ga.	1.022	21.4	780
Sioux Falls, S.D.	0.894	17.8	916
South Bend, Ind.	0.881	17.7	883
All unconcentrated airports	0.874	17.6	1,240

Note: Sampling error, at the 95-percent confidence level, was less than 2 percent of the estimate in all cases except for the average yield from Medford, in which case it was 2.007 percent. See appendix I for explanation of fare index as well as for information on the calculation of average yield and trip distance.

Source: GAO's analysis based on data from DOT's O&D Survey for 1989.

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